



The Filter Series 110 LE(N)

Three major Benefits

purifying our planet

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Perfect combination: Innovative design ideas plus tried-and-tested filter technology

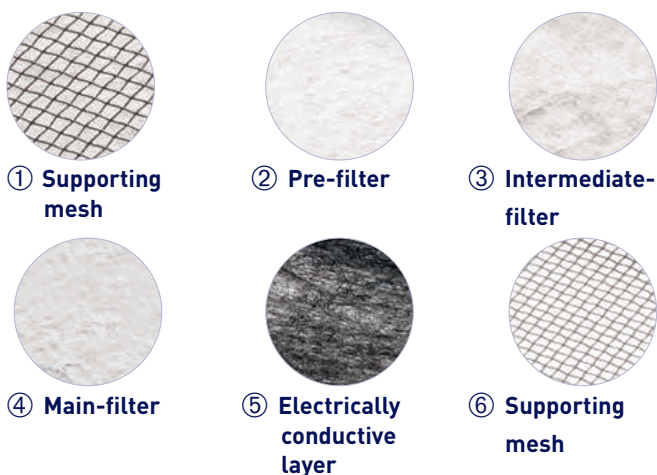
Our filter series offers you Hengst's proven filter technology combined with innovative ideas. The filterelement is located inside the filter housing. During the filtration process, the differential pressure is permanently monitored: As soon as the dirt holding capacity of the of the filter element is reached, the new modular maintenance indicator on the top of the housing indicates accordingly. A compression spring enables easy removal of the filter element by automatically detaching it from the locating spigot in the filter housing.



The filter element featuring PURE POWER (PWR):

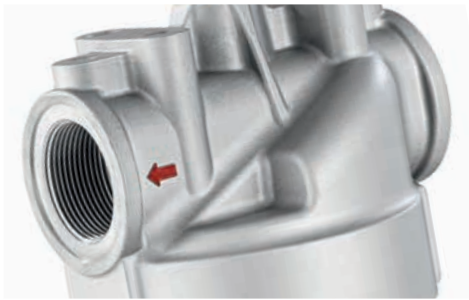
The filter element consists of a 6-layer material combination, the core of which is made up of asymmetrically arranged filter layers of inorganic glass fiber layers. The layers are designed in such a way, that the combination achieves a high retention rate and dirt holding capacity, in conjunction with a low clean differential pressure drop. This increase in performance is achieved by means of three effective micro glass layers in combination with an electrically conductive fleece and support fabric as part of the standard range. This increased performance is achieved by three effective micro glass layers as standard in combination with an electrically conductive layer and a supporting mesh. The filter material is pleated and wrapped cylindrically round the support tube and glued so it is impermeable to liquid along the material seam and top and bottom end caps.

The adjacent cross sectional view illustrates the mesh pack structure of the filter element.



Three major Benefits: The 110 LE(N)0040-0400 Filter Series

Impressive in design, practical in handling, inspiring in technology



The filter head design

In conjunction with the cyclone effect, the filter head offers the possibility of directing the inflow of the medium in a defined direction. This has a positive influence on the flow behaviour and the dirt separation ability.



The filter bowl design

The shape of the filter bowl improves seating and securing of the filter element. This ensures the filter element is protected against movement, while pressure is distributed evenly.

The cyclone effect technology

Increase efficiency and reducing costs with innovative ideas. The cyclone effect optimizes dirt absorption, while simultaneously extending the service life and change-out intervals of the filter element.



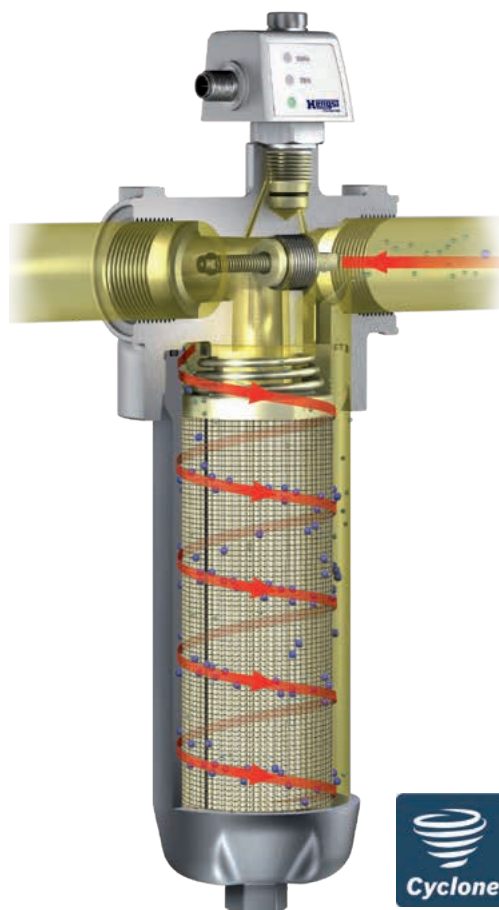
Further Technical Features:

- Mechanical/electronic contamination indicator for filter monitoring.
- Light alloy construction, ideal for mineral oils, synthetic oils, bio oils and HFC-hydraulic fluids.

The perfect twist: The cyclone effect for improved efficiency

With the cyclone effect, the filter series 110 LE(N) 0040-0400 represents a major product innovation. The incoming fluid no longer flows directly on the filter element, but flows tangentially to it and moves downwards around the filter element in a helical pattern.

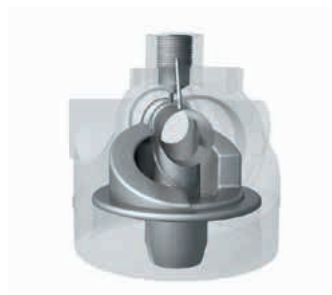
This feature, for which a patent is pending, transports heavy dirt particles to the outside and prevents the filter pores from blocking prematurely. Depending on the flow velocity, coarse dirt particles collect in the pockets of the filter bowl under the filter element.



**Entry of the
medium**

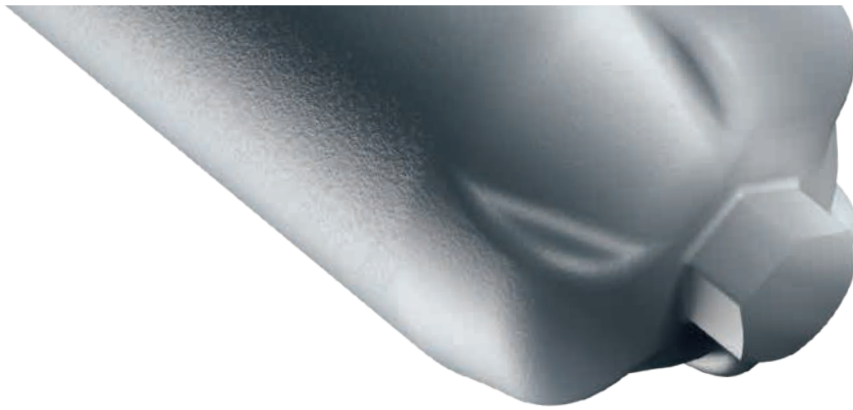


**Tangential
alignment of
the medium**



**Positively driven flow
on a path similar to
that of a cyclone**

With the optimal design: The design of the filter bowl

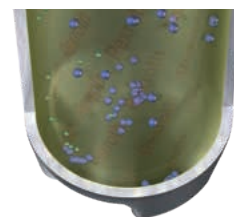


Another highlight of our inline filter series is the design of the filter bowl. The innovative design makes it easier to separate the filter element from the filter head compared to the standard housing.



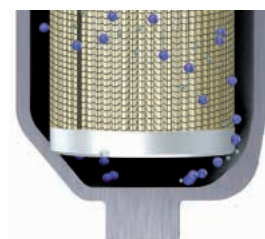
Pressure spring

Due to the pressure spring in the filter head, the filter element rests against the beads inside the filter bowl. This protects it against movement due to flow impacts and vibrations. In addition, the upward flow of the medium is reduced. The swirl caused by the cyclone effect is settled in this area.

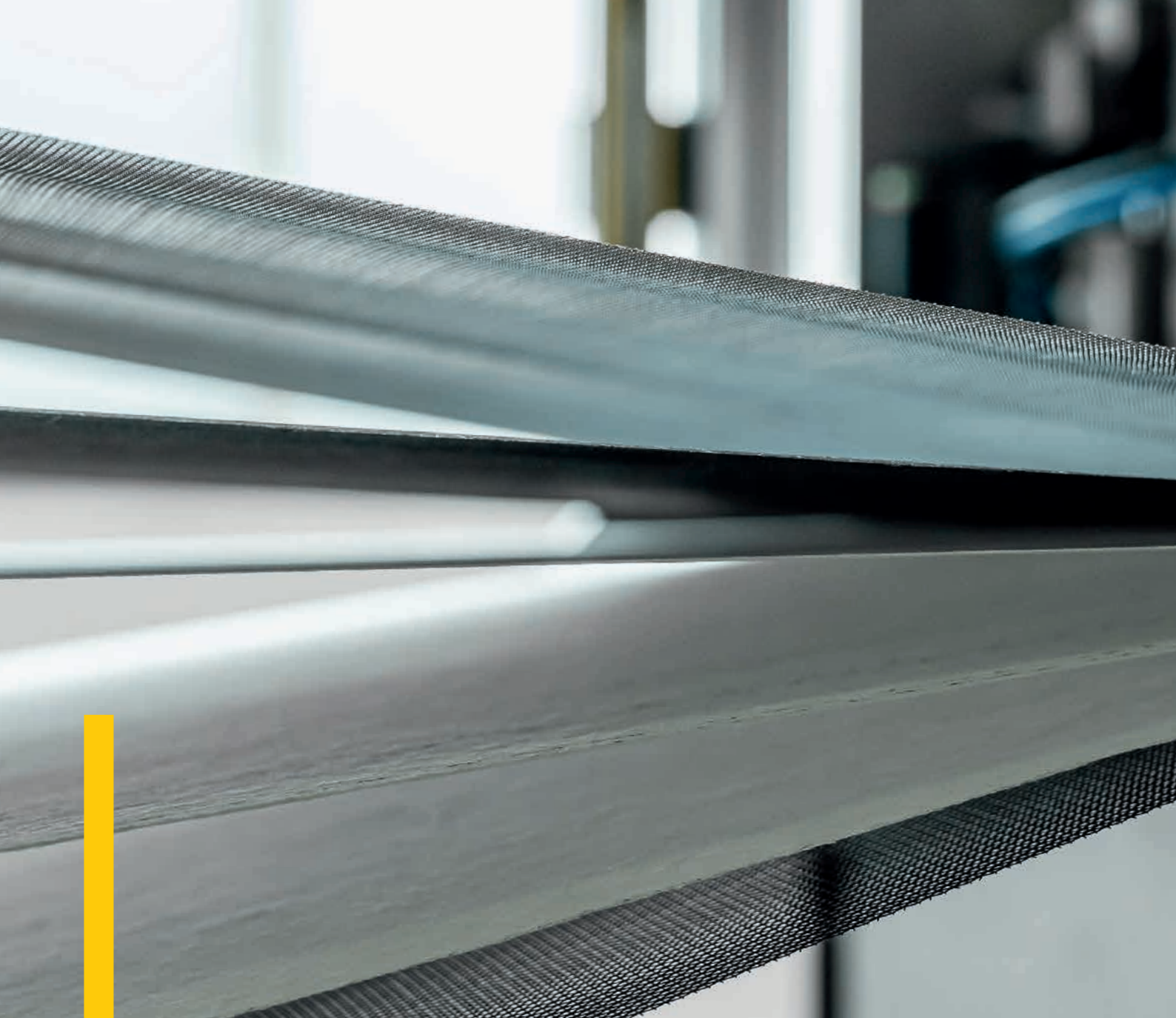


Cyclone-Effect

In contrast to the shape of a conventionally designed hydraulic filter, the fluid also flows under the filter element over the pockets of the filter bowl. The pressure on the filter element is evenly distributed, effectively preventing overloading of the filter under changing operating conditions.



Notches for uniform flow under the filter element



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FILTRATION